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Proposed Amendment

APPENDIX

1.

(Currently Amended)

A storage control apparatus for accessing

data ~~of stored in~~ a logical unit, ~~which is concatenation unit~~ having a plurality of logical units, each logical unit being comprised of a ~~single one~~ or a plurality of ~~more~~ physical units, by a request from a host, comprising:

a channel adapter for interfacing with said host; and

a plurality of controllers which control each one of the plurality of logical units,

wherein when said channel adapter receives an I/O said request to a ~~concatenation logical unit concatenating a plurality of said logical units~~ from said host, said channel adapter sends an I/O data request for one logical unit of said plurality of logical units to ~~one a~~ first controller which causes said one logical unit ~~constituting said concatenation logical unit, out of said plurality of controllers,~~ to execute the I/O processing in said ~~one~~ first controller, and then said channel adapter sends another I/O data request for another logical unit of said plurality of logical units to ~~another a~~ second controller which causes said another logical unit ~~constituting said concatenation logical unit, out of said plurality of controllers,~~ to execute the I/O processing in said ~~other controller.~~ second controller, and

wherein said first controller judges whether said I/O data request is an I/O request extending over to said second controller which is in charge of said another logical

unit after said I/O processing in said first controller, and sends a message indicative of the judgment result to said channel adapter.

2. (Cancelled)

3. (Currently Amended) The storage control apparatus according to Claim 2,1, wherein ~~said~~ each controller has a table for storing the logical block address range of each logical unit, and

said first controller refers to said table in the logical block address range requested by said I/O data request, and judges whether said I/O data request is an I/O data request extending over to said ~~another~~second controller, which is in charge of said another logical ~~unit constituting said concatenation logical unit.~~

4. (Currently Amended) The storage control apparatus according to Claim 2,1, wherein said channel adapter sends said I/O data request to said ~~another~~second controller according to the response from said ~~one~~first controller that the I/O data request extends to said ~~another~~second controller.

(5.) (Currently Amended) ~~The storage control apparatus according to Claim 1,~~ A storage control apparatus for accessing data stored in a concatenation unit

having a plurality of logical units, each logical unit being comprised of one or more physical units, by a request from a host, comprising:

a channel adapter for interfacing with said host; and

a plurality of controllers which control each one of the plurality of logical units,

wherein when said channel adapter receives said request from said host, said channel adapter sends an I/O data request for one logical unit of said plurality of logical units to a first controller which causes said one logical unit to execute I/O processing in said first controller, and then said channel adapter sends another I/O data request for another logical unit of said plurality of logical units to a second controller which causes said another logical unit to execute I/O processing in said second controller,

wherein said channel adapter has a table for storing said controllers corresponding to each logical unit, the logical block address range of each logical unit, and the logical units constituting said concatenation ~~logical~~ unit, and

said channel adapter selects a controller of said corresponding logical unit when ~~an I/O~~ said request is received from said host.

6. (Currently Amended) The storage control apparatus according to Claim 5, wherein ~~said each~~ controller has a table for storing the logical block address range of each logical unit, and

said first controller refers to said table in the logical block address range requested by said I/O data request, and judges whether said I/O data request is an I/O data request extending over to said ~~another~~second controller, which is in charge of said another logical unit ~~constituting said concatenation~~ logical unit.

7. (Currently Amended) The storage control apparatus according to Claim 1, wherein said each controller comprises:

a cache memory for storing a part of the data of said logical unit which the controller is in charge of; and

a processing unit for executing I/O processing using said cache memory according to said I/O data request.

8. (Original) The storage control apparatus according to Claim 1, wherein said channel adapter is constituted by a plurality of channel adapters for connecting said plurality of controllers.

9. (Currently Amended) A storage control method for accessing data ~~of~~stored in a logical concatenation unit, which is each logical unit being comprised of ~~a single one~~ or ~~a plurality of more~~ physical units, by a request from a host, comprising steps of:

receiving an ~~I/O~~said request from said host to ~~a concatenation logical unit~~
~~concatenating a plurality of logical units by a channel adapter;~~

sending an I/O data request for one logical unit of said plurality of logical
units from said channel adapter to ~~one~~a first controller which is in charge of said one
logical unit ~~constituting said concatenation logical unit out of a plurality of controllers~~
which ~~is~~are in charge of said plurality of logical units;

executing I/O processing in said ~~one~~first controller;

judging whether said I/O data request is an I/O data request extending over
to said second controller which is in charge of said another logical unit after said I/O
processing by said first controller;

sending a message indicative of the judgment result to said channel
adapter.

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sending ~~another~~a ~~the~~ I/O data request for another logical unit of said
plurality of logical units from said channel adapter to ~~another~~a second controller which is
in charge of said another logical unit ~~constituting said concatenation logical unit out of~~
~~a of said~~ plurality of controllers which ~~is~~are in charge of said plurality of logical units; and

executing ~~the~~ I/O processing in said ~~other controller~~second controller.

10. (Cancelled)

11. (Currently Amended) The storage control method according to Claim ~~10,9~~, wherein said response step comprises:

a step of referring to a table storing the logical block address range of each logical unit in the logical block address range requested by said I/O data request by said ~~one~~first controller; and

a step of judging whether said I/O data request is an I/O data request extending over to said ~~another~~second controller, which is in charge of said another logical unit ~~constituting said concatenation logical unit.~~

12. (Currently Amended) The storage control method according to Claim ~~10,9~~, wherein the step of executing I/O processing in said ~~another~~second controller further comprises a step of sending said I/O data request to said ~~another~~second controller according to the response from said ~~one~~first controller that the I/O data request extends to said ~~other~~second controller by said channel adapter.

(13) (Currently Amended) ~~The storage control method according to Claim 9,~~ A storage control method for accessing data stored in a concatenation unit, each logical unit being comprised of one or more physical units, by a request from a host, comprising steps of:

receiving said request from said host to a channel adapter;

sending an I/O data request for one logical unit of said plurality of logical units from said channel adapter to a first controller which is in charge of said one logical unit out of a plurality of controllers which are in charge of said plurality of logical units;

executing I/O processing in said first controller;

sending another I/O data request for another logical unit of said plurality of logical units from said channel adapter to a second controller which is in charge of said another logical unit of said plurality of controllers which are in charge of said plurality of logical units; and

executing I/O processing in said second controller,

wherein said reception step comprises:

a step of referring to a table for storing said controllers corresponding to each logical unit, logical block address range of each logical unit, and logical units constituting said concatenation logical-unit by said channel adapter; and

a step of selecting a controller of said corresponding logical unit when an I/O request is received from said host.

14. (Currently Amended) The storage control method according to Claim 13, wherein said response step comprises:

a step of referring to a table storing the logical block address range of each logical unit in the logical block address range requested by said I/O data request by said one first controller; and

a step of judging whether said I/O data request is an I/O data request extending over to another said second controller, which is in charge of another logical unit ~~constituting said concatenation logical unit.~~

15. (Currently Amended) The storage control method according to Claim 9, wherein the I/O processing step for said I/O data request further comprises a step of executing I/O processing using a cache memory for storing a part of the data of said logical unit which each controller controls according to said I/O data request.

16. (Original) The storage control method according to Claim 9, wherein said channel adapter is constituted by a plurality of channel adapters for connecting said plurality of controllers, and said reception step further comprises a step of which one of the plurality of channel adapters for connecting said plurality of controllers receives the I/O-request from said host.